## RIVERS AND FLOODS

## By R. E. SPENCER

Except for moderate losses resulting from the rises in the Alabama and Tombigbee systems, floods during March were without important consequence.

In his discussion of the flood in the Tombigbee system, the official in charge of the Weather Bureau office at Mobile, Ala., refers to the unusual rapidity of the rise in the Black Warrior River at Tuscaloosa, Ala.:

The stage at this station at 8 a. m. on March 6 was 12.3 feet, and at the same hour on March 7 it was 48.1 feet—a 24-hour rise of 35.8 feet, which is unprecedented since the establishment of the station. It was ascertained from the river observer that the stage at 7 p. m. March 6 was about 13 feet, which makes a rise of approximately 35 feet in 13 hours.

Relative to the effects of this flood, Mr. Ashenberger's report continues:

Only the lowest river bottoms of the Tombigbee from near Demopolis to its confluence with the Alabama and of the Black Warrior from its mouth to some distance above Tuscaloosa were inundated. Reports from correspondents give the aggregate monetary value of property losses as follows:

Tangible property	\$21,800
Matured crops	2, 000
Prospective crops (5,000 acres)	50, 000
Livestock and other movable property	1, 900
Suspension of business	

The aggregate of the monetary value of property saved by Weather Bureau warnings is \$46,500.

The Alabama system flood, resulting from somewhat unevenly distributed rains on March 6-7 over the Coosa, upper Alabama, and tributary streams, did comparatively little damage:

Tangible property (largely roads)	\$3,000
Matured crops	6, 100
Prospective crops (700 acres, mostly corn)	4,000
Livestock	
Suspension of business	16, 100

A saving of \$3,000 was reported through the use of Weather Bureau warnings, in addition to which a considerable unreported saving in livestock was effected.

A loss of about \$2,500 was the result of an overflow of lowlands, caused by an ice gorge which formed on the night of March 5-6 in the Missouri River just below Vermilion, S. Dak., at the junction of the Vermilion and Missouri Rivers.

Continued high stages in the Illinois and Wabash Rivers were properly forecast and were attended by no material damage.

The Tallahatchie River flood, which still persists, will be reported upon when it subsides.

The usual table of crest stages follows:

[All dates in March unless otherwise specified]

River and station	Flood stage	Above flood stages—dates		Crest	
		From-	то—	Stage	Date
ATLANTIC DRAINAGE	Feet			Feet	
James: Columbia, Va	18 21	8 9	9 9	19. 0 21. 5	8 9
Rimini, S. C	12	$\left\{\begin{array}{c} (^1)\\ 11\\ 22\end{array}\right.$	5 16 25	13. 3 12. 6 \ 12. 8	Feb. 23 13 25
Ferguson, S. C	12	(1) 9 23	3 19 27	12. 6 12. 9 12. 4	Feb. 24 14 25
Saluda: Pelzer, S. C	7 10 11	8 20 15	(²) 16	7. 0 10. 4 11. 3	8 24–25 15

<sup>1</sup> Continued from last month.

River and station	Flood	Above flood stages—dates		Crest	
	stage	From-	То-	Stage	Date
EAST GULF DRAINAGE Alabama: Selma, Ala	Feet 35	11	13	Feet 35. 8	12
Coosa: Gadsden, Ala Lock No. 4, Lincoln, Ala Etowah: Canton, Ga Cahaba: Centerville, Ala	22 17 11 25	9 7 7 7	12 13 8 8	23. 2 19. 7 18. 2 26. 5	9 8 7 7
Tombigbee: Lock No. 4, Demopolis, Ala	39 46	9	19 10	49. 7 58. 5	15
West Pearl: Pearl River, La	13	6	8	13. 4	8 7
Saginaw: Saginaw, MichFlint: Flint, Mich	19 11	(1) (1)	2 1	20.7 12.8	Feb. 27 Feb. 25
Grand: Eaton Rapids, MichGrand Rapids, Mich		(1) (1)	2 3	5. 4 13. 3	Feb. 22 Feb. 28
MISSISSIPPI DRAINAGE					
Tuscarawas: Coshocton, Ohio Hocking: Athens, Ohio Wabash:	8 17	<sup>(1)</sup> 9	1 9	12.0 17.5	Feb. 27
Covington, Ind Terre Haute, Ind Vincennes, Ind Mt. Carmel, Ill Tippecanoe, Norway, Ind	16 14	(1) (1) 2 (1) (1)	2 2 6 7 2	18. 9 16. 4 14. 8 19. 8 6. 5	1 1-2 5 5 Feb. 24 and Mar. 2
White: Decker, Ind	18	4	5	18.3	4-5
Elliston, Ind. Edwardsport, Ind. Elk: Fayetteville, Tenn	19 15 14	(1) (1) 7	2 4 9	22. 1 17. 8 18. 0	Feb. 28 2 7
Peru, III  Henry, III.  Peoria, III.  Havana, III  Beardstown, III.  Pearl, III  Meramee:	14 10 18 14 14 12	(1) (1) (1) (1) (1) (1)	17 13 9 21 23 16	18. 4 12. 6 19. 3 16. 5 18. 0 14. 4	Feb. 27 2 2-3 4-5 5-6 6-7
Pacific, MoValley Park, Mo		(1) g	10 10	14. 9 12. 3 15. 6	Feb. 28 9 Feb. 27
St. Francis:     Fisk, Mo     St. Francis, Ark     St. Francis, Ark     Missouri: Wolf Point, Mont     Yellowstone: Miles City, Mont     Arkansas: Yancopin, Ark     Black: Corning, Ark     Tallahatchie: Swan Lake, Miss	20 18 17 13 29 11 25	(1) 30 14 (1) (1) (1) (1)	1 5 30 14 4 16 (2)	22, 5 18, 2 17, 7 14, 1 35, 0 12, 0 31, 9	Feb. 28 5 30 14 Jan. 27-30 4-5 Jan. 27-29

<sup>&</sup>lt;sup>1</sup> Continued from last month, <sup>2</sup> Continued at end of month.

## EFFECT OF WEATHER ON CROPS AND FARMING OPERATIONS, MARCH, 1930

## By J. B. KINCER

General summary.—During the first decade the generally mild conditions, with much sunshine, in the central valleys and West, made a favorable period, although there were some unfavorably heavy rains in the Southeast; the additional moisture was beneficial in some parts of this section. Cold weather caused some harm to tender truck in east Gulf States, with considerable injury indicated in Florida. Winter grains continued to make satisfactory advance in the principal producing sections, except for too much moisture in parts of the Ohio Valley and continued dryness in the Southwest. Preparations for corn planting made good progress, with considerable put in throughout the Gulf section and seeding became well advanced in eastern Texas. Rains interfered with work in the eastern Cotton Belt, but much land had been prepared, while planting progressed in southern Texas and considerable cotton was up.

During the second decade weather conditions continued largely favorable for agricultural operations, although there was some delay by showers to field work in parts

<sup>2</sup> Continued at end of month.

<sup>3</sup> Below flood stage at 8 a. m., Mar. 1.